

Juliana Dias

CONTACT INFORMATION	NOAA Earth System Research Laboratory Physical Sciences Division R/PSD1 325 Broadway St Boulder, Colorado 80305-3328 USA	(303) 497-7235 juliana.dias@noaa.gov
RESEARCH INTERESTS	organized tropical convection, atmospheric and climate dynamics, moist convective processes, and data analysis	
EDUCATION	Courant Institute of Mathematical Sciences, New York University Ph.D. in Mathematics and Atmospheric and Ocean Sciences, Sep 2010 <ul style="list-style-type: none">• Dissertation Topic: Interactions between moisture and large scale circulation• Advisor: Olivier Pauluis Instituto de Matematica Pura e Aplicada (IMPA), Rio de Janeiro, Brazil M.S. in Applied Mathematics, Feb 2005 <ul style="list-style-type: none">• Advisor: Andre Nachbin Universidade de Sao Paulo, Sao Paulo, Brazil B.S. in Civil Engineering, Dec 2002	
RESEARCH EXPERIENCE	NOAA Earth System Research Laboratory CIRES Atmosphere and Ocean Processes Team Lead — 2015 -present CIRES Research Scientist — 2013 - present NRC/CIRES Post-doctoral — September 2010 - September 2013 <i>with George Kiladis</i> Courant Institute of Mathematical Sciences, New York University Research Assistant — August 2005 - August 2010 <i>with Olivier Pauluis</i>	
HONORS AND AWARDS	2014 2011 – 2013 2010 – 2011 2009 – 2010 2009 2005 – 2008 2005 2003 – 2004	QJRMS Editor's Award National Research Council Research Associateship Award Cooperative Institute for Research in Environmental Sciences Visiting Fellows Program Dean's Dissertation Fellowship New York University Graduate School of Arts and Sciences Outstanding Oral Presentation 17 th Conf. on Atmospheric and Oceanic Fluid Dynamics Henry MacCracken Fellowship New York University Graduate School of Arts and Sciences IMPA Graduate Research Fellowship Master Fellowship from CNPq (Brazilian Governmental Agency)
PUBLICATIONS	Dias, J. , N. Sakaeda, G. N. Kiladis, and K. Kikuchi, 2017: Influences of the MJO on the space-time organization of tropical convection. <i>J. Geophys. Res.</i> , (<i>submitted</i>) Kikuchi, K., G. N. Kiladis, J. Dias , and T. Nasuno, 2017: Convectively coupled equatorial waves during CINDY/DYNAMO: Slow Kelvin waves as building blocks. <i>Clim. Dyn.</i> , (<i>in review</i>). Sakaeda, N., G. N. Kiladis, and J. Dias , 2017: The diurnal cycle of tropical cloudiness and rainfall associated with the Madden-Julian Oscillation. <i>J. Climate</i> , (<i>accepted pending minor revisions</i>).	

- Faria, J. C. O, J. **Dias** and, P. L. S. Dias, 2016: Existence of weak solutions to a simplified model for the moist semigeostrophic equations. (*in review*).
- Kiladis, G. N., J. **Dias**, and M. Gehne, 2016: The Relationship between equatorial Mixed Rossby-gravity and Eastward Inertio- Gravity waves: Part 1. *J. Atmos. Sci.*, **73**, 2123–2145.
- Dias**, J and G. N. Kiladis, 2016: The Relationship between equatorial Mixed Rossby-gravity and Eastward Inertio- Gravity waves: Part 2. *J. Atmos. Sci.*, **73**, 2147–2163.
- Albers J. R. , T. Birner, G. N. Kiladis and J. **Dias**, 2016: Tropical Upper-Tropospheric Potential Vorticity Intrusions during Sudden Stratospheric Warmings. *J. Atmos. Sci.*, **73**, 2361–2384.
- Dias**, J., and G. N. Kiladis, 2014: Influence of the basic state zonal flow on convectively coupled equatorial waves. *Geophys. Res. Lett.*, **41**, doi:10.1002/2014GL061476.
- Kiladis, G. N., J. **Dias**, K. H. Straub, M. C. Wheeler, S. N. Tulich, K. Kikuchi, K. M. Weickmann, and M. J. Ventrice, 2014: A comparison of OLR- and circulation-based indices for tracking the MJO. *Mon. Wea. Rev.*, **142**, 1697–1715.
- Dias**, J., P. L. Silva Dias, G. N. Kiladis and M. Gehne, 2013. Modulation of shallow water equatorial waves due to a varying equivalent height background. *J. Atmos. Sci.*, **70**, 2726–2750.
- Dias**, J. , S. Leroux, S. N. Tulich, and G. N. Kiladis, 2013. How systematic is organized tropical convection within the MJO? *Geophys. Res. Lett.*, **40**, 1420–1425
- Silva Dias, M. A. F., J. **Dias** , L. M. V. Carvalho, E. D. Freitas and P. L. Silva Dias, 2012. Changes in extreme daily rainfall for Sao Paulo, Brazil. *Climatic Change*, 1–18.
- Dias**, J., S. N. Tulich, and G. N. Kiladis, 2012. An object based approach to assessing tropical convection organization. *J. Atmos. Sci.*, **69**, 2488–2504.
- Pauluis, O. and J. **Dias**, 2012. Satellite estimates of precipitation-induced dissipation in the atmosphere. *Science*, **335** (6071), 953–956.
- Dias**, J. and O. Pauluis, 2011. Modulations of the phase speed of Convectively Coupled Kelvin Waves by the ITCZ. *J. Atmos. Sci.*, **68** (7), 1446–1459.
- Dias**, J. and O. Pauluis, 2010. Impacts of convective life-time on moist geostrophic adjustment. *J. Atmos. Sci.*, **67** (9), 2960–2971.
- Dias** J, and Pauluis O., 2009. Convectively Coupled Waves Propagating along an Equatorial ITCZ. *J. Atmos. Sci.*, **66** (8), 2237–2255.

TEACHING EXPERIENCE

Spring	2009	Instructor, Calculus I
Fall	2008	Instructor, Calculus III
Spring	2008	Teaching Assistant, Calculus I
Fall	2007	Teaching Assistant, Quantitative Reasoning
Spring	2007	Teaching Assistant, Quantitative Reasoning
Fall	2006	Teaching Assistant, Pre-Calculus
Spring	2006	Teaching Assistant, Numerical Analysis

PROFESSIONAL ACTIVITIES

2017 AMS Atmospheric and Oceanic Fluid Dynamics Meeting, organizing committee

AMS Atmospheric and Oceanic Fluid Dynamics, committee member (2012 - present)

Member of the review panel for the NRC graduate postdoctoral and visiting scientists fellowships (2015 - present)

Reviewer for the Journal of the Atmospheric Sciences, Journal of Geophysical Research, Journal of Climate, Monthly Weather Review, Quarterly Journal of the Royal Meteorological Society, Geophysical Review Letters, Mathematical Geosciences, Climate Dynamics

Associate Editor at AMS Monthly Weather Review (2013-2015).

LANGUAGES	Fluent in Portuguese (native), English (fluent) and Spanish (intermediate)
CONFERENCE TALKS AND POSTERS	AMS 20 th Conf. on Atmospheric and Oceanic Fluid Dynamics, Minneapolis, Minnesota (June 2015). SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah (May 2015) AMS 95th Annual Meeting, Phoenix, Arizona (January 2015). SIAM Waves & Coherent Structures, Minisymposium on Nonlinear Waves in Geophysical Fluid Dynamics (August 2015) AMS 31 th Conf. on Hurricanes and Tropical Meteorology, San Diego, California (April 2014). Mathematical Congress of the Americas, Special session on “Mathematical Modeling in Geophysical Fluid Dynamics”, Guanajuato, Mexico (August 2013). AMS 19 th Conf. on Atmospheric and Oceanic Fluid Dynamics, Newport, Rhode Island (June 2013). 9 th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Special session on Waves and Convection, Orlando, Florida (July 2012). AGU Fall Meeting, San Francisco, California (December 2012) AMS 30 th Conf. on Hurricanes and Tropical Meteorology, Ponte Vedra, Florida (April 2012). WCRP OSC Climate Research in Service to Society, Denver, Colorado (October 2011). AMS 18 th Conf. on Atmospheric and Oceanic Fluid Dynamics, Spokane, Washington (June 2011). Workshop on Organized Tropical Convection and Large-Scale Circulation: Theory, Modeling, and Observations, Banff, Canada. (May 2011). Waves and Multiscale Processes in the Tropics at the American Institute of Mathematics, Palo Alto, California (December 2010) AMS 29 th Conf. on Hurricanes and Tropical Meteorology, Tucson, Arizona (May 2010). Waves in Fluids II, Paraty, Rio de Janeiro, Brazil (June 2009) AMS 17 th Conf. on Atmospheric and Oceanic Fluid Dynamics, Stowe, Vermont (June 2009). AMS 28 th Conf. on Hurricanes and Tropical Meteorology, Orlando, Florida (April 2008).

INVITED TALKS

20th CMMAP Team Meeting, Boulder, CO (January 2016)

NCAR Climate & Global Dynamics seminar, Boulder, CO (March 2015)

Colloquium at the Department of Atmospheric Sciences, CSU, Fort Collins CO (December, 2015)

Clouds, Convection and Data Workshop, Center for Prototype Climate Modeling NYU-AD, Abu Dhabi (March, 2014)

Workshop on Tropical Dynamics and the MJO, University of Hawaii, Honolulu, Hawaii (January 2014)

Data Mining Seminar, CAOS/CIMS, New York University (April 2013).

AOS Colloquium Series, Department of Atmospheric and Ocean Sciences, UW-Madison (November, 2012)

Dynamics Seminar, GFDL, Princeton University (October 2011).

Dynamics Seminar, Department of Atmospheric Sciences, CSU-Fort Collins (May 2011).

Division of Ocean and Climate Physics Seminar, Lamont-Doherty Earth Observatory, Columbia University. (April 2011).

Joint Colloquium Series, Department of Atmospheric and Environmental Sciences & Atmospheric Sciences Research Center, SUNNY-Albany. (April 2011).

Dynamics and Complex Systems Seminar, Department of Applied Mathematics, University of Colorado at Boulder (March 2011).

Earth System Research Laboratory Seminar, NOAA, Boulder, Colorado (November 2010).